SUICIDE INCIDENTS (BEHAVIOR) MENTAL HEALTH INDICATOR AND ITS PREVENTION IN SILISTRA DISTRICT FOR 2017-2023

Nikolina Voynova
University General Hospital for Active Treatment "Kanev" Ruse, Bulgaria, n.voynova19@gmail.com
Nikolina Valkanova
Medical University - Varna, Bulgaria, valkanova.doc@abv.bg

Abstract: Good mental health is a state of well-being in which people can cope with their work, stress, realize their abilities and contribute benefit both to individuals and to society. Suicidal behavior is one of the parameters by which the mental health and social well-being of society is evaluated. We set ourselves the goal of studying the role of mental health in suicidal incidents and the contribution of preventive measures in the Silistra region for 2014-2023 Tasks: To study the dynamics of suicidal behavior, demographic characteristics, factors, risks (psychosocial, subjective, objective) that lead to anxiety and depression for (2017-2023). We used data from registration, reports, analyzes of the Regional Health Inspection (RHI). Silistra, informational materials from the Ministry of Health (MoH), the National Center for Public Health and Analysis, (NCPHA).
Data from the "Card for registration of a suicidal act", filled out at the scene of the accident by teams of the Emergency Medical Assistance Center (EMC)-Silistra and in the medical facilities in the Silistra region. We used a documentary method, statistical processing, level of significance ($p<0.05$), graphical presentation. Results: The ten-year study period covers the most pressing issues of suicidal behavior of the population in the Silistra region in different contexts throughout the life span, benefiting both individuals and society. The total number of suicidal acts in 2014-2023 in the Silistra region is 501 with a permanent trend of increased suicide risk in women 60%, men 39.92%, The most vulnerable groups are people over 18 years old - 85.06%, people with insecure employment, especially exposed to the risk of negative stress. Persons under 18 are 14%. The degree of urbanization - a populated place is not a determining factor for taking suicidal actions. The share of the inhabitants of the villages is higher, 57.66%, compared to the cities, 42.31%. We consider the motives in three groups - conflicts, diseases - somatic and mental and social. Self-poisonings are leading – with drugs 50.29%, chemicals 14.52%, cold weapons 8.78%, being thrown from a height -5.98% or a vehicle - 0.5%, burning - 0.38% and electric current 0.19% less often. The exit from the suicide attempt was successful 20.4. %, with the remaining survivors being uninjured 66.5%, remaining alive with bodily injuries 1.31%. Conclusions: The suicidal behavior of one of the parameters that is used to assess the mental health and social well-being of the society in the Silistra region for the 10-year period 2014-2023 has been studied. We establish a lasting trend of a two-fold higher suicide risk in women, with a preponderance of the inhabitants of the villages. Leading motives for this behavior are - psychotic factor or mental disorder - 24.87%, conflicts with spouse also 24.57%, followed by conflict with parents - 24.57%, severe somatic illness - 7.05% Most the frequent method of suicide attempt among persons in Silistra region for all years is drug poisoning 50.29%, followed by hanging 16.86%, poisoning with chemicals 14.52 According to the results obtained, the risk profile of the person with suicidal tendencies includes female sex, over 18 years of age, persons with family problems/conflicts and persons with psychological disorders.
Keywords: motives, psychotherapy, suicidal risk, Suicide, behavior, outcome

1. INTRODUCTION

Mental health is a state of well-being, stress-free communication with other people, stopping the normal stress factors of life, balance and comfort, in which a person is maximally capable of working and satisfied with himself, actively develops and improves. When a person believes in himself and values himself as he is, he has a chance to deal with all the situations that challenge him. Suicidal behavior is one of the parameters by which the mental health and social well-being of society is assessed. Suicide (suicide) is an act of taking one's own life as a result of various insurmountable mental, social and life difficulties. It is one of the 10 leading causes of death worldwide. This act is preceded by altered behavior, anxiety, depression, serial crimes, which requires adequate help from specialists working with risk patients, excellent knowledge of signals that herald danger , the risk factors (age crises, diseases and accidents) for the development of suicidal behavior [Katrin de Lange2024, Ivanov P 2020]
In Bulgaria, to the deteriorating health and demographic characteristics in the country as a result of the low birth rate and high mortality, another important factor is added - the intentional loss of human life. On average, about 3,000 people per day commit suicide. For every such person, there are 20 or more people who have attempted suicide. Suicide mortality ranks first in the structure of mortality due to the so-called "external causes", i.e. the cases of dying not due to somatic diseases. **[**Lambroso C 2023, Ivanov P2020] Almost everyone who seriously perceives the

idea of suicide signals their intentions to those around them in a different way. Suicidal ideation is less likely to occur suddenly, impulsively, unpredictably, or inevitably. It appears rather as the "last straw" of a deteriorating social adaptation. According to statistics, about 70-75% of individuals disclose their intentions. Sometimes these signs can be hard to detect hints and the environment is not able to detect them, especially in adolescence [Olivia P ,50 2022, Kox L2022,Gaidarova R. 2000]

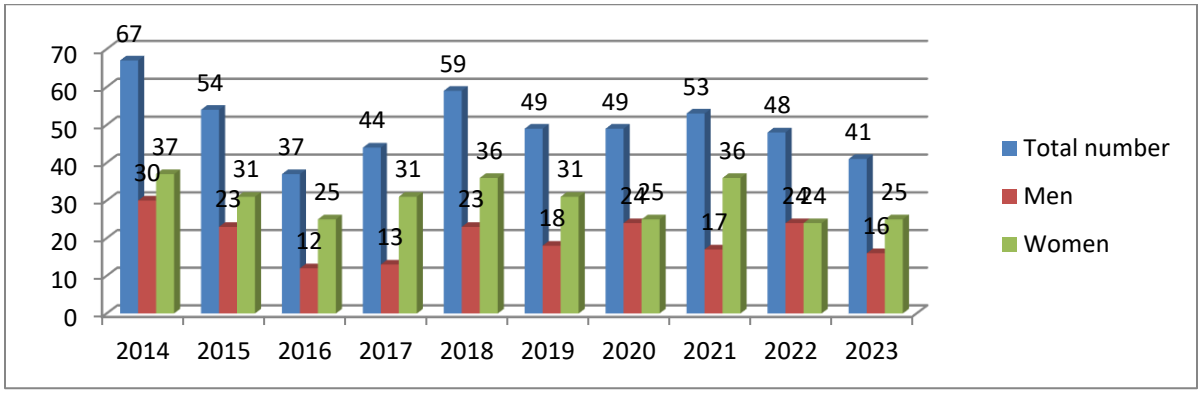
Objective: To study the role of mental health in suicidal incidents and the contribution of preventive measures in the Silistra region for 2014-2023 **Tasks:** To study the dynamics of suicidal behavior, demographic characteristics, factors, risks (psychosocial, subjective, objective) that lead to anxiety and depression for ten years (2017-2023) **Materials and methods:** Data from registration, reports, analyzes of the Silistra Research Center, informational materials from the Ministry of Health, National Health Service, news sites and health portal, publications. Data from the "Card for registration of a suicidal act", filled out at the scene of the accident by Emergency Medical Center-Silistra teams and in the medical facilities in the Silistra region (which includes gender, age, place of residence, social status, marital status, the motives and method of committing suicidal acts). Documentary method, statistical processing, level of significance we accept ($p<0.05$), graphic presentation.

2. RESULTS

Silistra is a district in the Republic of Bulgaria. The district occupies an area of 2,851.1 km² and a population of 97,770 people in 2021. The administrative division of the district includes 118 settlements with 7 municipalities. The rural population predominates with a 56.2% relative share, with no significant gender differences over the years. It has the lowest gross domestic product (GDP) recorded here, although it is currently growing relatively high. Health care suffers from a lack of doctors and insufficient beds in hospitals. (Regional profiles Development indicators (2022)) Hospital medical care is provided by inpatient treatment and CSMP-Silistra with 5 branches (city of Silistra, city of Tutrakan, city of Dulovo, city of Glavinitsa and village of Kaynardzha) As of 31.12.2023. in (Emergency Medical Assistance) Center for emergency medical aid and its affiliates, 10,769 outpatient examinations were performed and 9,294 calls were made. The number of people served with emergency conditions was 19,785, of which 10,770 people (54%) had medical emergencies and 9,015 people with non-urgent conditions (46%) Here, cases of suicidal acts are accepted and registration and notification with a "Card for registering a suicidal act" filled in at the scene of the incident by CENTER FOR EMERGENCY MEDICAL AID-Silistra teams.

A priority of mental health and well-being is paying special attention to the most pressing issues of the Suicidal behavior of the population in Silistra Region in different contexts throughout the life span, which benefits both individuals and society for studies period ten years 2017- 1023. Registration of suicidal situations and incidents is shown in dynamics in number and gender in the Silistra region for 2014-2023. in fig #1

Fig. 1. Registered suicide situations in number and gender by year in the district Silistra for 2014-2023



Source: Information of the Regional Health Inspection on suicidal acts in the Silistra region for 2014- 2023 [Internet]. Available online Website: rzi-silistra.com

The total number of suicidal acts in the period 2014-2023 in the Silistre Region is 501. Men - 200 -39.92%, women 301 - 60% Forms a lasting trend of increased suicide risk in women Suicide attempts in men are more few in number, but more often ended in death (Fig #1). A statistically significant difference was found between suicidal acts of men and women ($p<0.05$)

The most vulnerable groups of people with insecure employment, young people, are especially at risk of negative stress, which can lead to anxiety and depression, depending on age. Suicidal acts by age groups shows that the relative share of persons under 18 years of age is 14%, persons over 18 years of age at 85.06%. The ratio is 1:6 for the entire period. (Fig #2) Found in a statistically significant difference between suicidal acts according to age finding that there is a strong correlation between suicidal acts and age over 18 years ($p<0.05$).

In childhood, mental illness is very rare. Suicides are caused by family and school crises. Children are easily offended, prone to impulsive actions, because they have unstable characters and a fragile psyche. Depressed children look the same as adults - sad and closed. Young people experience a complex change in the period of adolescence, they are torn between challenging the world of adults and the difficulty of carrying out the mental processing of separation from childhood. When one of these two tendencies increases, it can become a "problem". Patrick Delaroche 2011 explores step by step all the problems that can arise during the delicate period of adolescence and provides invaluable help to parents concerned with understanding their child. [Gaidarova R,2000, Lambroso S. 2023]

Psychosocial risks, subjective and objective factors that lead to anxiety and depression are determined by the degree of urbanization and negative impact on the working conditions of the populated place - city, village. Here it is not a determining factor for taking suicidal actions. The share of the inhabitants of the villages is higher, 57.66%, compared to the cities, 42.31% for the entire period, and in 2021, for the villages, it reaches 69.81%.

We examine the structure of committed suicidal acts by social status groups: the unemployed are leading 30.46%, followed by housewives 14.62%1, students 13.82%, working 10%, other unspecified 4.8%, disabled 4.8% . In terms of education, the leading group is that of persons with an average of 26.38% and mainly 54.54%, but there are those without education 5.54%, and a bachelor's degree 1%, the professions are represented by six types, among them: doctor and social worker occupies 0.33% %, driver 1.67%, economist 0.66%, engineer 1% and others 95.98%., nationality only Bulgarian citizen 100% and Ethnicity Bulgarians 41.09% %, Turks-31 .77, Roma 26.23%. people. Most often the person is with relatives 51.3%, with a partner 27.98%, much less often alone 15.62%, with friends 1.5% Family members are 46.54%, non-family members 37.19% ,divorced -5.03% widowed 8.22%.

These indicators give an objective picture of the person's behavior, the decrease in productivity and the deterioration of the quality of his work, the decrease in the precision of actions, the complication of his relationships with other people. This allows for a subjective assessment of mental discomfort, the experience of dissatisfaction with oneself and dissatisfaction with others, lack of confidence in one's abilities and actions, anxiety about the future

We consider the motives in three groups - conflicts, diseases-somatic and mental and socially everyday. Conflict situations are half of the motives that we studied with a preponderance of conflict with spouse, parents, relatives and children, manager, colleagues, classmate. There is not only a conflict with an accountant.

Psychotic or mental disorders are fundamental in motives for suicidal situations. Depression and suicide are closely related, with 10-15% of patients with severe and recurrent depression subsequently dying by suicide. Between 40 and 70% of depressed patients have suicidal thoughts, and more than 90% of people who die by suicide have suffered from a mental disorder, most commonly depression Indicators of high suicide risk include direct and indirect suicidal statements . indirect suicide claims. [Gaidarova R, 2000,]

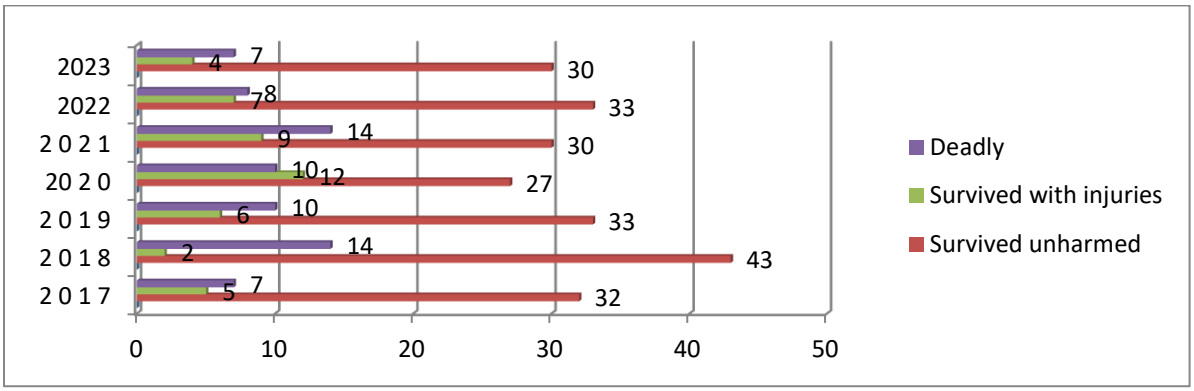
Leading motives for taking suicidal actions are the following factors - psychotic factor or mental disorder - 24.87%, conflicts with spouse also 24.57%, followed by conflict with parents - 24.57%, severe somatic illness - 7 .05%, separation from a loved one - 5.1%, conflicts with children 5.59%, unrequited love 5.1%, loss of a loved one 4.13%, financial problems 4.37%, conflicts with relatives by 3 ,16%. There is a registered case of suicidal acts due to conflict with colleagues 0.72%, classmates 1%, supervisors0, 0.48%, job loss 0.48%, conflict with children 4.37%, unwanted pregnancy 1%, fear of penalty 0.24%, no religious motives.

The methods of application in 10 groups show that self-poisoning is the leading is self-poisoning - with medication 50.29% chemicals 14.52%, cold weapons 8.78%, throwing it high 5.98% or a vehicle 0.5%, burning 0.38% and electric current 0 ,19% less often. The outcome of the suicide attempt of 491 people for 2014-2023 is considered in two variants - successful and unsuccessful. . Those who graduated with a fatal outcome - 93 people were successful--18.9%.- unsuccessful 398 people-81.05%. The outcome of the situation 2017-2023 shows that the remaining alive without injuries are 66.5%, and the remaining alive with bodily injuries 13,1 %, Deadly **20,4**% (**Fig. 2**)

A way out of the suicidal situation depends on the appearance and development of suicidal thoughts, which is a long process. In the beginning, they are unstable and unclear, but gradually they acquire clear outlines and, although they are often associated with contradictions and hesitations, they shape the suicidal intentions that grow into concrete decisions. Over time, suicidal symptoms may develop or fade, depending on the person's mental state. Such is the development of the classic state, but there are cases when suicidal thoughts are sudden, do not go along this long path of struggle of motives and counter-motives, and a person commits suicide impulsively, which remains a mystery to others **[**Gaidarova R 2000**]**

Fig. 2 Assume that this figure is not final and the actual number of dead is higher, as the data is filled by the emergency teams at the scene of the accident.

Fig. 2 Output of the number of suicide attempts in Silistra region for 2017-2023



Source: Information of the Regional Health Inspection on suicidal acts in the Silistra region for 2014- 2023 [Internet]. Available online Website: rzi-silistra.com

The types of weapons and their methods of application are eight types, with hanging being half 49.47%, firearms being 22.91%,, snorting from a height 15.62%, drowning -1.56%, and singular numbers are burning 2 the number of electric shocks 2 and being thrown from a vehicle - 4. The experience was mainly carried out at home 67.17%, outdoors - 8.74, in a public place 2.04%. The study includes data on the reaction of society and subsequent actions for 2017-2023. The prosecutor's office/investigative authorities are notified in 75% of the cases and 25% are not. There is no death certificate in 96.72%, and 3.2% have such. 70.55% were consulted by a psychiatrist and 29.44% were not. Hospitalized 56.35% and 43.54% were not hospitalized. The data for a 10-year period for the Silistra region allows a better analysis of all aspects of suicides in this region of the country. The possibility of a more detailed analysis is a basis for conducting adequate suicide prevention within the framework of the national health policy. In this period, the context of the COVID-19 pandemic is an additional factor for increasing stress at the workplace and therefore the risk of developing burnout. This syndrome is expressed in a fundamental emotional and value disengagement of employees from their jobs. Burnout is defined as a state of emotional and physical exhaustion caused by prolonged periods of stress . Chronic stress in the work environment has not been successfully managed, which according to the World Health Organization "burnout is an occupational phenomenon" A person's well-being is critical to preventing mental health problems such as anxiety and depression. The various consequences of occupational stress such as demotivation depend on mental health care. Developing strategies to deal with stress and promoting prevention mechanisms is the responsibility of state bodies [Tarpomanova T, Slavova2024] Health preventive work on the problem in Silistra Oblast was established by the epidemiological studies within the analysis. In all Regional Health Inspections (RHI), experts are trained in early detection of anxiety and depression in primary care. A detailed analysis of data from all aspects of suicide allows better work with children in schools on the topics related to anxiety, depression, aggression and auto-aggression and sexual health. In the older age groups, the following contribute to increasing people's awareness of mental health problems and suicidal behavior: severe somatic illnesses, especially chronic and accompanied by pain, severe motor agitation, anxiety expressed feelings of guilt, hopelessness, depression, which society perceives as stigma and associates it with mental illness (madness). [Cox L 2022]

The involvement of general practitioners, psychologists and social workers in the early detection of anxiety and depression in primary care has helped to account for changes in the incidence of psychiatric diagnoses over a long period of time and has directed health prevention in a concrete direction in organized groups and the population. The built web portal for online learning, massively distributed visual materials in the school structures, work with experts from the field of psychiatry and public communications were accepted with understanding by all involved with this task. Trained media experts whose work is related to coverage of mental illness and suicide help to raise awareness of mental health issues and suicidal behavior. The wide variety of informational means distributed by RHI and personal doctors (campaigns, printed information brochures for childhood, dedicated to school aggression and its overcoming - are received with understanding and great interest). National television programs on highly rated national televisions, radio interviews in national radios provided and complemented our efforts in places - 10

news sites and health portals. The created and promoted bilingual website in the country, on which all printed and electronic materials of the project "Improved services for mental health" are available, is used for better health policy on these issues Training was held on November 20, 2021, Saturday 80 health care professionals from all over the country in a free online training organized by the Bulgarian Association of Health Care Professionals, on the topic "Suicide prevention - current state [Information of the Regional Health Inspection on suicide [Monov D, Genova A, Voinova N et al2023]

3. DISCUSSION

The assessment of suicidal risk is an extremely responsible and at the same time difficult task. There are a number of known risk factors for suicide. Nevertheless, these risk factors are not necessarily closely related in time to the onset of suicidal behavior—nor does any one risk factor alone increase or decrease risk. Research shows that the risk of suicide increases as the number of risk factors present increases, such that the presence of more risk factors at any given time leads to an increased risk for suicidal behavior. Suicidal thoughts and behaviors (including suicide attempts and death by suicide) are more common among people with mental disorders.

According to Gaidarova 2018, 800,000 to 1,000,000 people commit suicide in the world every year, with suicide ranking 10th among the causes of death. It is estimated that 20,000,000 non-fatal attempts are made annually. In our country, on average, about 1,200 people commit suicide every year. Gaidarova 2000 defines as a "deep delusion" that suicides are motivated by mental illness. Only 1/3 of suicides are committed by mentally ill people. Much more - 2/3, are healthy people who take their own lives. Among them and those with a vigilant civil position. They see the negative sides of society and that nothing changes. They are spiritually elevated, they have an ideal and a cause related to the welfare of the people. They cannot come to terms with the ideological, economic and social crisis of the transition and proceed to ostentatious suicide. Suicides are brave, they try to change the lives of others. In our study, this is 18.9%, which confirms this opinion. Among the European countries, there is a high growth of suicides in Lithuania, Hungary and Finland, and in the eastern countries - Japan. Their number has grown by 60% since the 1970s. In the study in the Silistra region, the suicide risk for females is higher than that: for females 60%, for males, 39.92%, . Other authors give the opposite characterization. By gender, men commit suicide 3-4 times more often than women, and the frequency of attempts is higher in women. The number of completed suicides is significantly higher in men than in women, although women make more suicide attempts. The difference in mortality between the two sexes is due, on the one hand, to the chosen methods of suicide, which in women are usually "softer" and allow more time for intervention, and on the other hand, to the fact that women are more likely to seek timely professional help help. Our study confirms the literature data higher risk of suicide. for the married there are 46.54%, the unmarried 37.19%, the divorced or widowed 8.22%. divorced -5.03%

Suicide prevention should be a concern of the whole society. Greater access to and greater trust in psychiatrists is needed, as is timely treatment of mental illness

Conclusions:

4. CONCLUSIONS

The suicidal behavior of one of the parameters used to assess the mental health and social well-being of the society in the Silistra region for the 10-year period 2014-2023 was studied. the inhabitants of the villages. Leading motives for this behavior are - psychotic factor or mental disorder - 24.87%, conflicts with spouse also 24.57%, followed by conflict with parents - 24.57%, severe somatic illness - 7.05% Most the frequent method of suicide attempt among is poisoning with medicines 50.29%, followed by hanging 16.86%, poisoning with chemicals 14.52 According to the results obtained, the risk profile of the person with suicidal tendencies includes female sex, age over 18, persons with family problems/conflicts and persons with psychological disorders. Suicide prevention should be a concern of the whole society. A larger lot is needed and greater trust in psychiatrists as well as timely treatment of mental illness.

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